Trends in
in Project Management

Dr. Ed Hoffman

PM Challenge 2009

Academy of Program/Project & Engineering Leadership
http://appel.nasa.gov

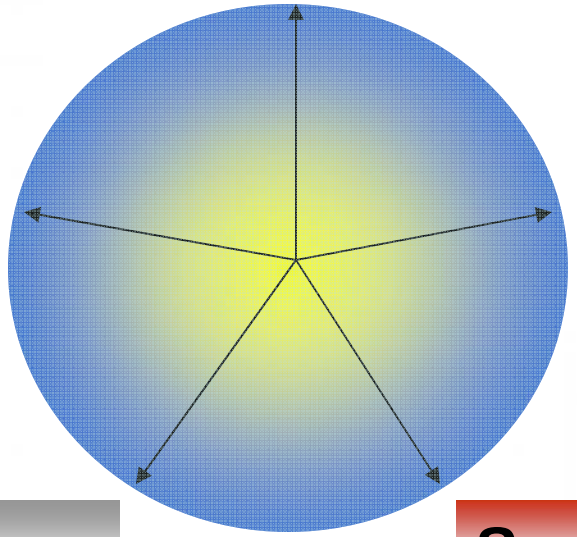
Complex Project Management Challenges

Talent Management

Can we attract and retain the people we need?

Long-Term Commitment

Can we sustain the passion and public support?



Resources

Can we obtain the resources and contain costs?

Technical Challenges

Can we deal with the complexity of the projects ahead?

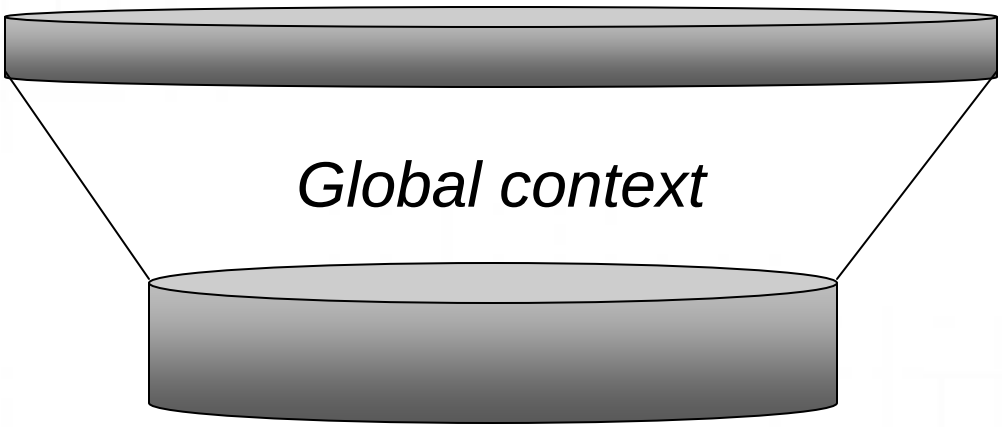
Social Challenges

Can we collaborate with international partners, industry, and academia?

Global Trends in Project Management

Drivers

- Increasing complexity
- Global market for top talent



Approaches

- Project academies
- Certification
- Standards

Increasing Project Complexity

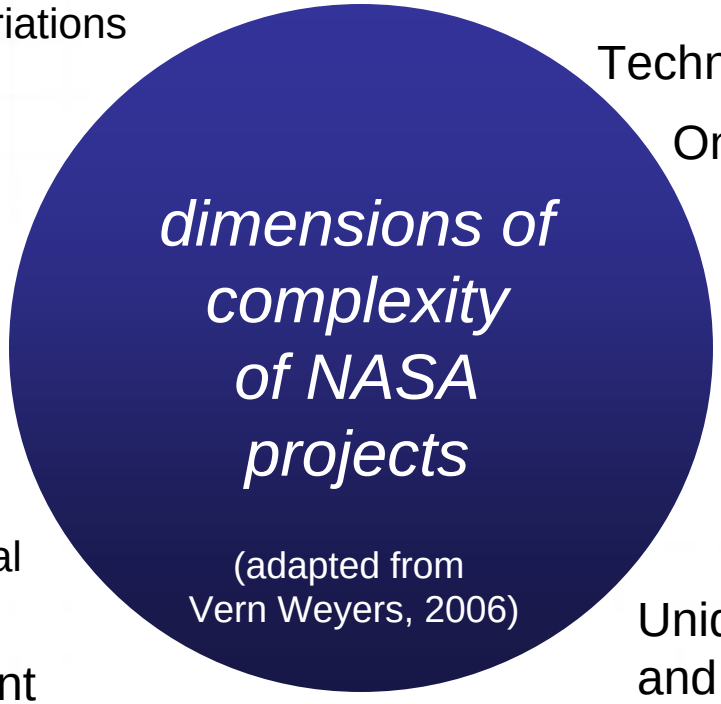
PROGRAMMATIC

Budget
- Congressional appropriations
- Changing agency constraints and priorities

Contractual
federal regulations

Schedule
- Launch windows
- Science/operational requirements

Sustained commitment
- Administration
- Congress
- Public
- Partners - academia, international, industry



TECHNICAL

Interfaces/systems engineering

Technological readiness

One-of-a-kind systems

Harsh launch and space environment

Software

Long operational lifetimes

Unique test facilities and equipment

High performance requirements

It has to work the first time

How We Learn

At three recent APPEL Masters Forums, we asked ~200 NASA master practitioners one question: how do you learn how to do your job?

How We Learn: 90% On the Job

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Project Academies

Top organizations around the world are establishing project academies. Why?

- Career development framework
- Common language for project management
- Strategic organizational alignment
- Support for entire project management community

(source: Terry Cooke-Davies, Human Systems International survey)

20 organizations attended 2008 project academy conference, including:

- Shell
- Motorola
- Rolls Royce
- BAE
- Schlumberger Group
- AMEC
- Costain

OMB FAC-P/PM Certification

- The Office of Management & Budget (OMB) has established a new set of requirements for program/project management certification applicable to all executive agencies
  - The Federal Acquisition Certification for Program/Project Managers (FAC-P/PM) recognizes three levels of certification and features continuous learning requirements
- In response, NASA must develop and certify NASA program/project managers in accordance with these standards

Certification Levels & the NASA Framework

FAC-P/PM Certification & NASA Levels of Leadership

FAC Apprentice Level	➡	NASA project team members / technical engineers
FAC Mid-Level/Journeyman	➡	NASA small project managers / subsystem leads
FAC Senior/Expert	➡	NASA large project managers / major systems managers / program managers (*existing veteran P/PMs*)

How do NASA P/PMs meet requirements?

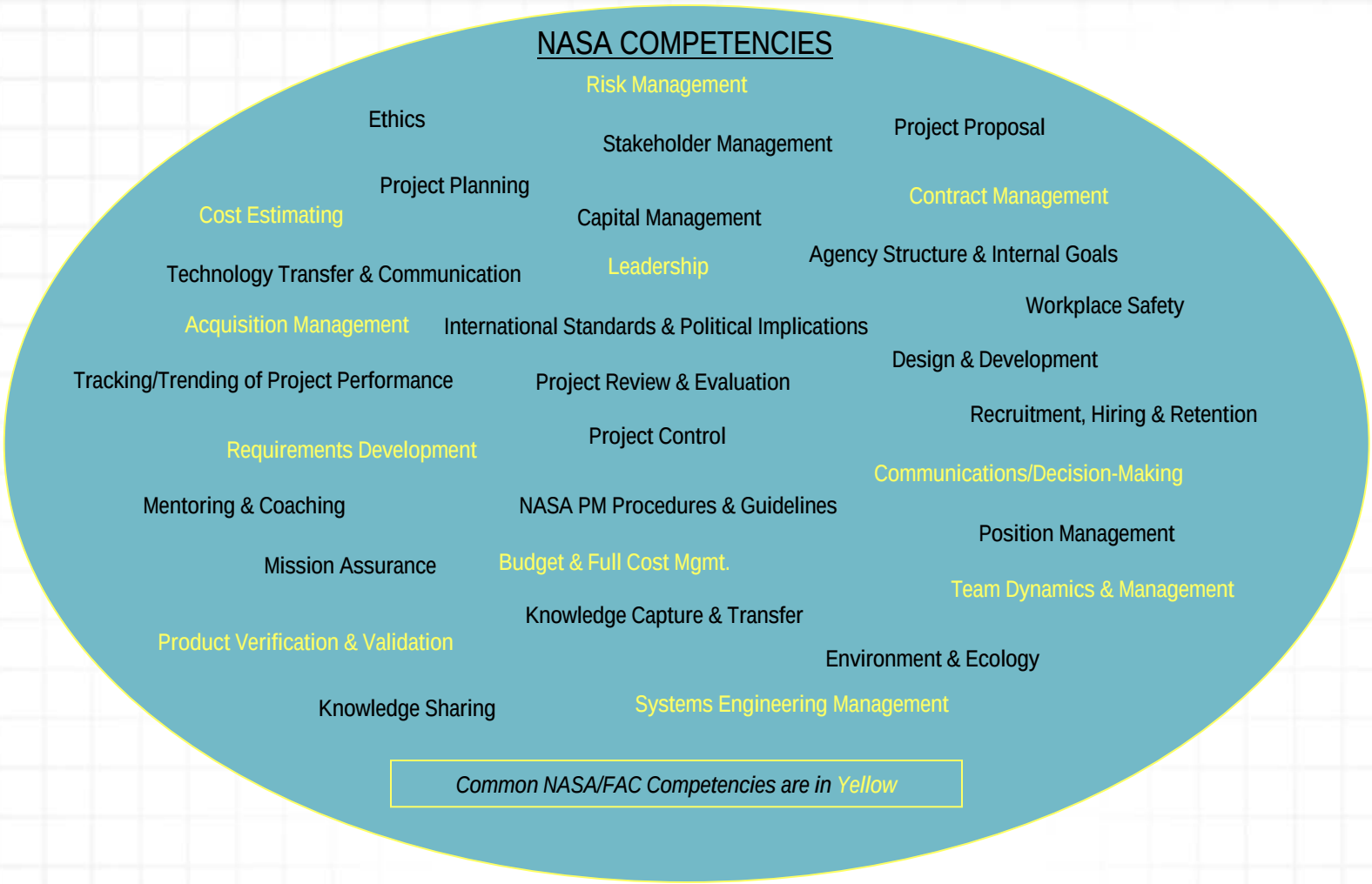
To meet certification requirements, NASA P/PMs must:

- Demonstrate the designated NASA/FAC technical and leadership competency proficiencies
- Meet the FAC experience and capability requirements
- Demonstrate competence in performing program/project responsibilities
- Demonstrate knowledge of NASA project management policies and guidelines

NASA P/PM Competency Areas

1. Project Conceptualization
2. Resource Management
3. Project Implementation
4. Delivery, Operation, and Closeout
5. Project Control and Evaluation
6. NASA Environment
7. Human Capital Management
8. Safety and Mission Assurance
9. Professional and Leadership Development
10. Knowledge Management

Overlap of NASA/FAC Competencies



To meet certification requirements, NASA P/PMs must demonstrate that they possess performance proficiency for the common NASA/FAI competencies and 80% of the remaining NASA competencies.

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Concluding Thoughts

Trends for next year:

- Complexity…… ⬆
- Global competition for top talent…… ⬆

Approaches:

Developing corporate project leadership requires an organizational commitment to understanding the dynamics of complex projects

- Project academies …… ⬆
- Certification …… ⬆

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